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## NOTICE OF ALLOWANCE AND FEE(S) DUE

32864

7590

10/08/2009

FISH & RICHARDSON, P.C. PO BOX 1022 MINNEAPOLIS, MN 55440-1022 EXAMINER

KARDOS, NEIL R

ART UNIT PAPER NUMBER

3623

DATE MAILED: 10/08/2009

2002P00222

	APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
•	10/628 565	07/29/2003	Karsten Schulz	13909-026001 /	4843

TITLE OF INVENTION: WORKFLOW MANAGEMENT ARCHITECTURE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	01/08/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

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II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

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FISH & RICH. PO BOX 1022 MINNEAPOLIS	/2009		I her State addr trans	reby certify that thes Postal Service v	is Fee(	e of Mailing or Transr s) Transmittal is being ficient postage for first ISSUE FEE address 1) 273-2885, on the da	nission deposited with the United t class mail in an envelope above, or being facsimile te indicated below.	
								(Depositor's name)
								(Signature)
								(Date)
APPLICATION NO.	FILING DATE	FILING DATE FIRST NAMED I		NTOR ATTORNEY DOCKET		RNEY DOCKET NO.	CONFIRMATION NO.	
10/628,565 TITLE OF INVENTION	07/29/2003 : WORKFLOW MANA	GEMENT ARCHITECT	Karsten Schulz URE			1	3909-026001 / 2002P00222	4843
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE D	OUE	PREV. PAID ISSU	E FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300		\$0		\$1810	01/08/2010
EXAM	IINER	ART UNIT	CLASS-SUBCLASS	3				
KARDOS	S, NEIL R	3623	705-009000					
"Fee Address" ind PTO/SB/47; Rev 03-C Number is required.  3. ASSIGNEE NAME A PLEASE NOTE: Unl	ondence address (or Cha 3/122) attached. ication (or "Fee Address 12" or more recent) attach ND RESIDENCE DATA less an assignee is ident h in 37 CFR 3.11. Comp	nge of Correspondence "Indication form and Use of a Customer A TO BE PRINTED ON	data will appear on t	ap to rnative single or attor ll be or typ he pa	3 registered patenticly, e firm (having as a gent) and the namrneys or agents. If printed.  be) atent. If an assign assignment.	t attorn membes of uno nan	p to le is 3 dentified below, the do	cument has been filed for
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<ul> <li>4a. The following fee(s) are submitted:</li> <li>☐ Issue Fee</li> <li>☐ Publication Fee (No small entity discount permitted)</li> <li>☐ Advance Order - # of Copies</li> </ul>			<ul> <li>4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)</li> <li>A check is enclosed.</li> <li>Payment by credit card. Form PTO-2038 is attached.</li> <li>The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number (enclose an extra copy of this form).</li> </ul>					
	s SMALL ENTITY statu	ıs. See 37 CFR 1.27.			-		FITY status. See 37 CF	R 1.27(g)(2).  e assignee or other party in
interest as shown by the	records of the United Sta	ites Patent and Trademark	Coffice.	nan u	ne applicant; a regi	stered	attorney or agent; or the	e assignee of other party in
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an application Confiden	tiality is governed by 35 d application form to the ions for reducing this but Virginia 22313-1450. DC	ILS C 122 and 37 CFR	1.14 This collection i	is est	imated to take 12 i	minute	s to complete including	by the USPTO to process) g gathering, preparing, and ne you require to complete rtment of Commerce, P.O. or Patents, P.O. Box 1450,

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10/628,565	07/29/2003	Karsten Schulz	13909-026001 / 2002P00222	4843	
32864 7590 10/08/2009			EXAMINER		
FISH & RICHAI	RDSON, P.C.	KARDOS	, NEIL R		
PO BOX 1022			ART UNIT	PAPER NUMBER	
MINNEAPOLIS, I	MN 55440-1022		3623		
			DATE MAILED: 10/08/2009		

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 1111 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 1111 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

	Application No.	Applicant(s)		
	10/628,565	SCHULZ ET AL.		
Notice of Allowability	Examiner	Art Unit		
	Neil R. Kardos	3623		
The MAILING DATE of this communication apperature. All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RI of the Office or upon petition by the applicant. See 37 CFR 1.313 1. ☑ This communication is responsive to response filed September 1.	(OR REMAINS) CLOSED or other appropriate comr IGHTS. This application is and MPEP 1308.	in this application. If not included nunication will be mailed in due course. <b>THIS</b>	'e	
2. The allowed claim(s) is/are <u>1,2,5-14,16,17,20-29,31 and 33</u>	<u>3-44</u> .			
<ul> <li>3.</li></ul>	been received. been received in Applicate	ion No		
International Bureau (PCT Rule 17.2(a)).  * Certified copies not received:				
Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONN THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.	IENT of this application.			
<ol> <li>A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give</li> </ol>				
5. CORRECTED DRAWINGS ( as "replacement sheets") mus	st be submitted.			
(a) I including changes required by the Notice of Draftspers	on's Patent Drawing Revi	ew ( PTO-948) attached		
1) ☐ hereto or 2) ☐ to Paper No./Mail Date				
(b) ☐ including changes required by the attached Examiner's Paper No./Mail Date				
Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in t				
<ol> <li>DEPOSIT OF and/or INFORMATION about the depo attached Examiner's comment regarding REQUIREMENT</li> </ol>				
Attachment(s) 1. ☑ Notice of References Cited (PTO-892)	5 $\square$ Notice of	nformal Patent Application		
<ol> <li>Induce of References Cited (P10-692)</li> <li>Induce of Draftperson's Patent Drawing Review (PTO-948)</li> </ol>	<u> </u>	Summary (PTO-413),		
3. ☑ Information Disclosure Statements (PTO/SB/08),	Paper No	o./Mail Date s Amendment/Comment		
Paper No./Mail Date <u>9/8/2009</u>	<del>_</del>			
<ol> <li>Examiner's Comment Regarding Requirement for Deposit of Biological Material</li> </ol>	8. ⊠ Examiner 9. □ Other	s Statement of Reasons for Allowance		
/Neil R. Kardos/	/Beth V. Bosy	· vell/		
Examiner, Art Unit 3623	'	atent Examiner, Art Unit 3623		

The following Office Action is a response to the request for continued examination filed on September 8, 2009. The specification has been amended by examiner's amendment. Claims 1, 16, 31, and 33 have been amended by examiner's amendment. Currently, claims 1, 2, 5-14, 16, 17, 20-29, 31, and 33-44 are pending and have been allowed. This action includes an examiner's amendment and reasons for allowance.

#### Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 8, 2009 has been entered.

### **Specification**

The amendment to the specification filed on September 8, 2009 has not been entered.

Rather, the specification has been amended by the examiner's amendment below.

#### Examiner's Amendment

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR

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1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

1 3

Authorization for this examiner's amendment was given by Ryan McCarthy on

September 23, 2009.

Please amend the application as follows:

In the Specification

Amend page 13, beginning at line 14, of the originally-filed specification as follows:

FIG. 4 is a diagram of an a computer architecture 400 for implementing a three-tier workflow model. In FIG. 4, a first workflow management computer system 402 includes a variety of elements designed to perform at least the following tasks . . .

Amend page 14, beginning at line 9, of the originally-filed specification as follows:

A user agent 412 is a human user's interface to the workflow computer system 402. . . .

Amend page 16, beginning at line 7, of the originally-filed specification as follows:

Finally with respect to mediator 446, a security manager 454 interacts with the security managers 420 and 442, and the certificate authority 422, to ensure secure communications between the mediator 424 and the workflow management computer systems 402 and 426.

The originally-filed specification contains support for these amendments at least in figure 9, page 27: line 5 through page 28: line 15, and page 16: lines 10-17.

### In the Claims:

1. A computer-readable medium encoded with a computer program comprising instructions that, when executed, operate to cause a computer to perform operations comprising:

providing a first workflow associated with only a first party, the first workflow including a first plurality of actual tasks;

generating a first workflow view representing an abstracted first workflow different from and based on the first workflow, the first workflow view including a first virtual task as an abstraction of the first plurality of actual tasks, and expressing the first virtual task as a first vertex within a first workflow view matrix;

providing a second workflow associated with only a second party, the second workflow including a second plurality of actual tasks;

generating a second workflow view representing an abstracted second workflow different from and based on the second workflow, the second workflow view including a second virtual task as an abstraction of the second plurality of actual tasks, and expressing the second virtual task as a second vertex within a second workflow view matrix;

generating a third workflow view based on the second workflow and including a third virtual task as an abstraction of the second plurality of actual tasks, the third virtual task being different than the second virtual task;

generating a first coalition workflow view referencing the first workflow view and the second workflow view to provide a first collaborative workflow, the first collaborative workflow specifying tasks that the first party and the second party are required to perform; and

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generating a second coalition workflow view referencing the third workflow view to provide a second collaborative workflow view, the second collaborative workflow specifying tasks that the second party is required to perform

wherein generating the first workflow view further comprises:

receiving a first user input selecting one <u>of</u> the first plurality of actual tasks that the user intends to be maintained as private;

when the selected actual task comprises a type split task or a type activity task, traversing the first workflow in two directions to find two type join tasks or two adjacent tasks, respectively, one task in each direction;

when the selected actual task comprises a type activity task, traversing the first workflow in two directions to find two adjacent tasks, one task in each direction;

identifying a respective path from the selected actual task to each of the type join tasks or <u>each of</u> the adjacent tasks;

providing one or more of the paths as possible <u>user selections</u> <del>v structures to the user for selection</del>;

receiving a second user input selecting one of the paths, the selected path including at least the selected one of the first plurality of actual tasks; and abstracting the selected path in the first workflow view.

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# 16. A method comprising:

storing a first workflow and a second workflow in a computer-readable storage medium, the first workflow being associated with only a first party and including a first plurality of actual tasks, and the second workflow being associated with only a second party and including a second plurality of actual tasks;

accessing the first and second workflows from the computer-readable storage medium; generating, using one or more computer processors a workflow management computer system, a first workflow view representing an abstracted first workflow different from and based on the first workflow, the first workflow view including a first virtual task as an abstraction of the first plurality of actual tasks;

expressing the first virtual task as a first vertex within a first workflow view matrix; generating a second workflow view representing an abstracted second workflow different from and based on the second workflow, the second workflow view including a second virtual task as an abstraction of the second plurality of actual tasks;

expressing the second virtual task as a second vertex within a second workflow view matrix;

generating a third workflow view based on the second workflow and including a third virtual task as an abstraction of the second plurality of actual tasks, the third virtual task being different than the second virtual task;

including the first workflow view and the second workflow view within a first coalition workflow view to provide a first collaborative workflow, the first collaborative workflow specifying tasks that the first party and the second party are required to perform; and

including the third workflow view within a second coalition workflow view to provide a second collaborative workflow view, the second collaborative workflow specifying tasks that the second party is required to perform

wherein generating the first workflow view further comprises:

receiving a first user input selecting one <u>of</u> the first plurality of actual tasks that the user intends to be maintained as private;

when the selected actual task comprises a type split task or a type activity task, traversing the first workflow in two directions to find two type join tasks or two adjacent tasks, respectively, one task in each direction;

when the selected actual task comprises a type activity task, traversing the first workflow in two directions to find two adjacent tasks, one task in each direction;

identifying a respective path from the selected actual task to each of the type join tasks or each of the adjacent tasks;

providing one or more of the paths as possible <u>user selections</u> <del>v-structures to the user for selection</del>;

receiving a second user input selecting one of the paths, the selected path including at least the selected one of the first plurality of actual tasks; and abstracting the selected path in the first workflow view.

31. (Currently Amended) A <u>workflow management computer</u> system comprising:

a computer-readable storage medium encoded with a computer program comprising

instructions that, when executed, operate to cause a computer to perform operations comprising:

## a computer operable to:

<u>provide</u> providing a first workflow that is associated with only a first party, the first workflow including a first plurality of actual tasks;

generate generating a first virtual workflow as an abstracted first workflow different from and based on the first workflow, the first workflow view including a first virtual task as an abstraction of the first plurality of actual tasks and expressing the first virtual task as a first vertex within a first workflow view matrix;

<u>provide</u> providing a second workflow associated with only a second party, the second workflow including a second plurality of actual tasks;

generate generating a second workflow view representing an abstracted second workflow different from and based on the second workflow, the second workflow view including a second virtual task as an abstraction of the second plurality of actual tasks and expressing the second virtual task a second vertex within a second workflow view matrix;

generate generating a third workflow view based on the second workflow and including a third virtual task as an abstraction of the second plurality of actual tasks, the third virtual task being different than the second virtual task;

generate generating a first coalition workflow view referencing the first workflow view and the second workflow view to provide a first collaborative workflow, the collaborative workflow specifying tasks that the first party and the second party are required to perform; and

generate generating a second coalition workflow view referencing the third workflow view to provide a second collaborative workflow view, the second collaborative workflow specifying tasks that the second party is required to perform

wherein, in generating the first workflow view, the computer is further operable to comprises:

receive receiving a first user input selecting one of the first plurality of actual tasks that the user intends to be maintained as private;

when the selected actual task comprises a type split task or a type activity task, traverse traversing the first workflow in two directions to find two type join tasks or two adjacent tasks, respectively, one task in each direction;

when the selected actual task comprises a type activity task, traverse the first workflow in two directions to find two adjacent tasks, one task in each direction;

<u>identify</u> a respective path from the selected actual task to each of the type join tasks or <u>each of</u> the adjacent tasks;

<u>provide</u> <u>providing</u> one or more of the paths as possible <u>user selections</u> <u>v-structures</u> to the user for selection;

receive receiving a second user input selecting one of the paths, the selected path including at least the selected one of the first plurality of actual tasks; and abstract the selected path in the first workflow view.

33. The system of claim 31 wherein the <u>computer is operations</u> further <u>comprise associating</u> operable to associate a virtual execution state of the first virtual task with respective execution states of the first plurality of actual tasks.

## Allowable Subject Matter

Claims 1, 2, 5-14, 16, 17, 20-29, 31, and 33-44 are allowed.

### Reasons for Allowance

The following is an examiner's statement of reasons for allowance:

The closest prior art, Schulz ("Architecting Cross-Organisational B2B Interactions") in view of Kafeza ("View-Based Contracts in an E-Service Cross-Organizational Workflow Environment") teaches abstracting workflows of actual tasks associated with private parties as virtual tasks in abstracted workflow views. Schulz in view of Kafeza also teaches generating coalition workflows that reference the abstracted workflows of the private parties. However, Schulz in view of Kafeza does not teach the specific claimed method of generating workflow views, including: receiving a first user input selecting one of the first plurality of actual tasks that the user intends to be maintained as private; when the selected actual task comprises a type split task, traversing the first workflow in two directions to find two type join tasks one task in each direction; when the selected actual task comprises a type activity task, traversing the first workflow in two directions to find two adjacent tasks, one task in each direction; identifying a respective path from the selected actual task to each of the type join tasks or each of the adjacent tasks; providing one or more of the paths as possible user selections; receiving a second user input selecting one of the paths, the selected path including at least the selected one of the first plurality of actual tasks; and abstracting the selected path in the first workflow view.

Shen ("Coordinating Interorganizational Workflows Based on Process-Views") also teaches abstracting workflows of actual tasks associated with private parties as virtual tasks in

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abstracted workflow views and generating coalition workflows that reference the abstracted workflows of the private parties. Shen also discloses types of task "join" and "split." However, Shen does not teach receiving a first user input selecting one of the first plurality of actual tasks that the user intends to be maintained as private; when the selected actual task comprises a type split task, traversing the first workflow in two directions to find two type join tasks one task in each direction; when the selected actual task comprises a type activity task, traversing the first workflow in two directions to find two adjacent tasks, one task in each direction; identifying a respective path from the selected actual task to each of the type join tasks or each of the adjacent tasks; providing one or more of the paths as possible user selections; receiving a second user input selecting one of the paths, the selected path including at least the selected one of the first plurality of actual tasks; and abstracting the selected path in the first workflow view.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neil R. Kardos whose telephone number is (571) 270-3443. The examiner can normally be reached on Monday through Friday from 9 am to 5 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Beth Boswell can be reached on (571) 272-6737. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Neil R. Kardos Examiner Art Unit 3623

/Neil R. Kardos/ Examiner, Art Unit 3623

/Beth V. Boswell/ Supervisory Patent Examiner, Art Unit 3623